ISO/RTO Interconnection Policy
For Distributed Generation

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I. Introduction

Good morning. I sincerely welcome this opportunity to deliver the keynote address to this conference on RTO interconnection policy for distributed generation. This conference links three areas of electricity policy that I believe are of great importance to the competitive future of the electricity industry. I firmly believe that distributed generation resources have the potential to change the competitive landscape in this industry. But before I discuss interconnection policy per se, I would like to provide a little background on the evolution of FERC's policy toward grid use and competition.

Today's wholesale electricity markets are increasingly competitive, due in no small part to FERC policies. The basic commodity can be traded in competitive wholesale markets. The Commission's philosophy is that electricity can best be supplied through competitive markets; that competition can discipline commodity prices better than regulation; and that competition unleashes the creative energies of market participants to develop the innovative products and services their customers want.

While this is true, deregulation of the energy commodity does not mean that regulators can walk away. Some observers think that if regulators just get out of the way, the markets will work. I don't agree. Markets do not simply spring magically and effortlessly into existence after 100 years of monopoly regulation just because regulators get out of the way. There is no competition and there are no markets unless generators can easily interconnect and the commodity can be delivered over

an open and nondiscriminatory transmission network. This integrated interstate network still exhibits natural monopoly characteristics, and thus must be appropriately regulated. Markets must be nourished by sound regulatory policies regarding access to and operation of the transmission grid. That's why a good deal of FERC's attention has focused on transmission as the underpinning of our pro market policy.

II. **Opening the Grid and Rationalizing its Operation**

By the mid-1990's, it had become clear that the then existing patchwork of contracts and tariffs allowing limited third party access to the grid was impeding competition. The Commission issued Order 888, which pried open the grid by requiring each jurisdictional transmission provider to file an open access transmission tariff that met minimum standards. Second, Order 888 made access decisions transparent by requiring all transmission business to be done on an Internet-based information system, the OASIS. And third, Order 888 allowed vertically integrated utilities to continue operating the grid but required them to "functionally unbundle" the transmission from the merchant business. While not perfect, Order 888 gave a kick start to competition in wholesale markets.

By the late 1990's, however, it had become clear that the basic Order 888 policy was insufficient for creating vibrant competitive electricity markets. Splintered grid management was causing a number of efficiency and reliability problems, and the continued operation of the grid by transmission entities with merchant functions was responsible for both actual and perceived discrimination in grid access. After what I believe to be an unprecedented outreach process, the Commission issued Order 2000 to promote the establishment of Regional Transmission Organizations in all regions of the Nation.

As you may know, I have long been an advocate of grid regionalization and am pleased that the Commission is now promoting RTOs. RTOs will bring many benefits needed for competitive electricity markets. Among those benefits are: taking a real bite out of vertical market power by separating the operational control of transmission from merchant functions; expanding the scope of power markets through improved pricing; improving grid reliability by centralized responsibility for congestion management and system emergencies; improving the process for getting new transmission facilities sited; and attracting new generation participants by

providing one-stop shopping over a broad market area. All of these attributes of RTOs will spur more robust electricity markets.

Given these immense benefits, you may also know that I am somewhat frustrated the Commission is relying on a voluntary approach to the formation of RTOs. I would have preferred a more direct approach. RTOs are needed now. Order No. 2000 is superb except for the weak punch line. We've essentially turned the job over to industry, and this means you. Thus, I urge you in the distributed generation community to participate in the efforts to get RTOs formed. You should insist on their formation in all regions of the country.

III. **Current Interconnection Policy**

A. Tennessee Power and Commonwealth Edison

One of the reasons for promoting competitive markets is that an open, vibrant and fair market will spur the entry of new generators where they are needed. Indeed, as I've said, that is one of the many benefits that RTOs will bring. But in order to serve the market, those new generating resources must get interconnected to the grid. Early this year I began to hear reports from marketers and generators that described serious barriers to interconnection in the form of a protracted, uncertain, gamed process for securing interconnection, or a requirement that generators purchase long-term transmission service in order to secure an interconnection. Merchant generators said they wanted only interconnection, not long term delivery service at the outset. Generators said utilities were making interconnection too hard, the process was too mysterious, and that interconnection legerdemain was frustrating interconnection efforts .

The Commission has begun to address these concerns on a case by case basis. In our Tennessee Power order early this spring, the Commission announced three important aspects of our interconnection policy. First, interconnection is a component of transmission service and the interconnection component may be requested separately from the delivery component. Generators do not have to purchase the delivery component in order to get the interconnection component. Thus, it is clear that "access to the grid" is now unbundled from "access across the grid."

Second, the order explained that interconnection carries with it certain rights, such as a right to the network capacity at the point of interconnection, consistent with the parameters specified in a service agreement. This means that an interconnected generator will not find itself "stranded from the grid" as a result of not taking delivery service at a particular time. It is important to give investors the assurance that their already interconnected generators will not have to get at the end of a queue of more recently interconnected generators.

And third, the Tennessee Power order explained clearly that the pro forma tariff protections and transparent procedures apply to interconnection requests. Generators had asked for a defined process with time lines and safeguards, and we responded. Applicable now to the interconnection process are procedures such as a transparent process for arranging interconnection, customer responsibilities, study procedures, compensation for new facilities, and interconnection agreements. The procedures specify firm time limits for securing an interconnection Adhering to these reasonable and time-limited procedures will ensure generators a fair shake at interconnection and will eliminate interconnection legerdemain.

And perhaps the most important protection is that the transmission provider must file with the Commission an unexecuted interconnection agreement within 30 days after the generator requests it. Such a filing requires a response from the Commission within 60 days. Thus, a generator can halt any gamesmanship on the part of the service provider, insist on the filing of a proposed interconnection agreement, and get a timely decision from the Commission on the matter.

Recently, Commonwealth Edison filed an appendix to its open access tariff that sets forth even more precise and user friendly procedures for requesting interconnection services, and the criteria by which those requests will be evaluated. The tariff appendix specifies the information to be included in requests for interconnection, how priority in the queue for interconnection will be determined, and the time frames within which studies will be completed and decisions made. In essence, they clarified and made transparent the interconnection process for their system, and filled in additional details. Commonwealth also has a web site specifying locations where generator interconnections would be most welcome.

Just three days ago the Commission accepted Commonwealth Edison's filing with a few modifications requested by the generators. This is another critical step

along the road to a more rational and pro-generator interconnection policy. Importantly, our Commonwealth Edison order also encourages all utilities to make filings to set out more specific, more user-friendly, and even more transparent procedures for requesting interconnection services, and the criteria for evaluating those requests. Those amendments would be evaluated as to whether they are consistent with or superior to the pro forma tariff standards for interconnection as set out in Tennessee Power.

Our Tennessee Power order provided interconnection process guidelines, but translating those guidelines into precise and transparent interconnection language on a utility by utility basis is the next step.

B. The Evolution Toward Standardization

We must do more however. I urge the industry and the Commission to move aggressively toward an industry-wide standardized interconnection process, and a standardized interconnection agreement that can be used as an industry benchmark. Our pro forma tariff under Order No. 888 standardized transmission service across market areas. It strikes me as logical that a "pro forma interconnection agreement" would be equally beneficial to ensuring that the signals that competitive electricity markets send for new generation resources are not blunted at the interconnection stage.

I note that the recent report by DOE's Power Outage Study Team finds a need to remove barriers to the use of distributed generation resources to ensure reliability during peak demand times, and that interconnection standards for these generation resources should be developed. Standard interconnection agreements is an area where a uniform national model can provide huge pro-market benefits.

I must note that the urgency with which I approach the further evolution of interconnection policy is not shared by all of my fellow Commissioners. They prefer to wait and see whether RTOs will help with this problem. I do not think waiting is good policy. That's why I want do all that I can to ensure that interconnection is facilitated to the full extent of FERC's jurisdiction.

C. FERC's Jurisdiction over Interconnection

1. Unbundled Sales

This raises an important issue: what is the extent of FERC's jurisdiction? The pro forma transmission tariff protections and interconnection procedures extend only to transmission service that is jurisdictional. In Order 888, the Commission found that our jurisdiction extends to transmission underlying sales for resale and to transmission underlying unbundled retail sales. Thus, our interconnection policy does not apply to interconnections that further bundled retail sales or to interconnections that do not involve a sale of power on the grid. But if the interconnection is for the purpose of providing a jurisdictional sale, the voltage level at which the interconnection occurs is probably irrelevant. In these circumstances, an interconnection at the distribution level can be FERC jurisdictional.

2. RTOs

As I mentioned earlier, some observers are relying on RTOs to resolve all interconnection issues. Order 2000 places interconnection authority squarely within RTOs. The order says that RTOs must have the authority to review and approve requests for interconnection. It is certainly true that RTOs will go a long way toward streamlining interconnections. Their independence from merchant interests will eliminate the existing self dealing incentive and ensure that all generators get a fair shake. An RTO will have no incentive to favor one generator over another. Also, RTOs will be responsible for complying with all streamlined and standardized processes the Commission requires of transmission owners and operators. This is all good.

But, I see at least four problems. First, the RTOs' interconnection authority may only extend to the wire facilities under their control. Second, an RTO that earns more revenue by making transmission investments may have too strong an incentive to favor relieving congestion though a transmission siting solution rather than a generation interconnection solution. So an RTO does not perfectly eliminate the potential for gamesmanship in interconnecting a new generator. Third, if an RTO adopts a performance based ratemaking system where rewards are based on throughput, it will have no incentive to interconnect generation resources that are close to load, such as distributed generation. And fourth, unfortunately, our RTO policy is voluntary, and RTOs may not form in some regions or form in a timely

manner. It may be 2-4 years before some RTOs are up and running. In sum, RTOs are certainly a big part of the interconnection solution, but not the total solution.

3. Pending Legislation

Yesterday, I testified before a Senate Committee and advocated that all transmission be placed under the Commission's jurisdiction. All users and potential users of transmission services should be placed under a uniform set of rules, standards and procedures. Placing all transmission under FERC jurisdiction would have two beneficial effects. First, it would bring transmission for bundled retail sales under the FERC open access tariffs. That is now left to the states, but the jurisdictional spilt over transmission allows discrimination in favor of in-state load. All transmission should follow the same rules. Second, this legislative change would bring the transmission systems of municipals, cooperatives, and Federal utilities under the open access tariffs. Clearly, this would help open up and standardize transmission and interconnection policy across the entire Nation.

4. Interconnection of Distributed Generation

Even with such expanded jurisdiction, however, FERC interconnection jurisdiction under the open access tariff is still very situation specific and still dependent on transmission or the interconnection being used to make a sale. And as best I can tell, distributed generation interconnection presents a number of scenarios that may or may not involve a wholesale or retail sale.

One scenario is where the distributed generator wants to make a sale to the local utility or any other utility on the grid. Clearly, this would be a sale for resale and the interconnection would come under FERC jurisdiction. This would be true even if the interconnection is at the local distribution level.

Another scenario is where a distributed generator is solely to serve load on the generator's side of the interconnection and the interconnection is solely to receive back-up or standby power. This could be a fuel cell installed in a house or business. No sale by the distributed generator seems to be involved so I would think this interconnection would not be FERC jurisdictional.

A third scenario is where a number of distributed resources are to be integrated into a setting involving a number of entities such that energy would be simply moved among those entities to produce a firm power supply. This one is a little harder. No sale seems to be involved, even though energy is moved on the utility's side of the interconnection. Jurisdiction may turn on the contractual relationship among the parties. Thus, FERC jurisdiction is unclear in this situation.

The Commission has other authorities regarding interconnection in addition to our open access tariffs under section 205 and 206 of the Federal Power Act. We have authority under section 210 that would apply to distributed resources that are Qfs under PURPA, and more general authority under section 202(b) of the Federal Power Act. But interconnections under both these provisions require separate applications to the Commission and may be cumbersome to utilize.

I'm telling you about these jurisdictional uncertainties for a reason. And that reason is this: while I want to do all that I can to standardize interconnection procedures and agreements for all generation resources to the fullest extent of the Commission's authority, I'm unclear about the extent of our interconnection authority regarding distributed generation. The Commission needs distributed generation to help us think through the jurisdictional quagmire. Give the Commission your evaluation of our existing interconnection policy following the Tennessee Power and Commonwealth orders. Do you agree with me that we should take additional steps to promote standardization of interconnection? What specific steps should we take? Give us an analysis of the breadth of FERC jurisdiction over distributed generation interconnection. Do RTOs change the interconnection equation for distributed generator? Although the Commission is making progress with respect to interconnection policy, I assure you that we are at the early stages of considering how our interconnection and RTO policies affect distributed generation. Please assist us in coming to grips with these issues.

IV. **Concluding Remarks**

In conclusion, I want to reiterate that I will do all I can do to help distributed generation in its striving for standardized procedural and technical interconnection standards. As a general matter, entry by all generators should be facilitated to the greatest extent possible. Easy entry is an underlying principle of fostering competitive markets. And entry by distributed generation brings unique attributes to the market. Distributed resources are an effective check on the market power of incumbent utilities. They are an excellent source of reliable power, boasting availability factors of up to 98%. Distributed resources may in the future bring many benefits to the grid, such as unloading the grid due to the proximity to load, reducing losses, and allowing the deferral of substations and distribution feeders. And last but certainly not least, distributed resources offer significant environmental benefits – compared to other sources – through fewer emissions of Nox, SO2 and CO2.

While at the end of the day the universal standardization that the distributed generation community seeks may require the cooperation of a number of governmental authorities and RTOs, I will do all I can to bring FERC's authority to bear on finding a solution.

Thank you.